

TO: Board Members

THROUGH: Kevin Patteson, Executive Administrator
John Steib, Chief Deputy Executive Administrator
Robert E. Mace, Deputy Executive Administrator, Water Science and Conservation
Les Trobman, General Counsel
David Carter, Manager, Contracting and Purchasing

FROM: Ruben S. Solis, Director, Surface Water Resources Division

DATE: February 4, 2014

SUBJECT: Funding for Studies of Environmental Flows in the Colorado and Lavaca Rivers and Matagorda and Lavaca Bays Basin and Bay Area

ACTION REQUESTED

Authorize the Executive Administrator to negotiate and execute contracts in a total amount not to exceed \$312,500 on or before August 31, 2014, for studies of environmental flows in the Colorado and Lavaca rivers and Matagorda and Lavaca bays basin and bay area.

BACKGROUND

Senate Bill 3 (80th Texas Legislature, 2007) created a stakeholder-driven process for identifying and quantifying flows needed to maintain sound rivers and estuaries in Texas. The process calls for flow recommendations to be made by stakeholder groups and scientists representing 11 major basins in the state and their associated bays. The process next calls for the Texas Commission on Environmental Quality to develop flow standards to be applied to new water rights based on the flow recommendations and other factors. Lastly, the process contains an adaptive management component which calls for continued studies to validate and refine the environmental flow analyses, recommendations, and standards, and the strategies to achieve those standards. To date, stakeholder and science teams have been created for seven basin/bay systems; the Texas Commission on Environmental Quality has set standards for four basins/bay systems and is scheduled to set standards for three more systems by March 1, 2014; and adaptive management work plans have been submitted for six systems (Attachment A). Four remaining major basin systems have yet to be scheduled by the Environmental Flows Advisory Group for evaluation.

The Colorado and Lavaca Rivers and Matagorda and Lavaca Bays Basin and Bay Expert Science Team submitted its flow recommendations to the Texas Commission on Environmental Quality on March 1, 2011. The Colorado and Lavaca Rivers and Matagorda and Lavaca Bays Basin and Bay Area Stakeholder Committee submitted its flow recommendations on August 30, 2011. The Texas Commission on Environmental Quality adopted flow standards for the system on August 8, 2012.

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Carlos Rubinstein, Chairman | Bech Bruun, Member | Mary Ann Williamson, Member
Kevin Patteson, Executive Administrator

The Colorado, Lavaca Basin and Bay Area Stakeholder Committee submitted its Draft Work Plan for Adaptive Management to the Environmental Flows Advisory Group on June 26, 2012. This work plan contains recommended studies and activities that will provide additional information for future rulemaking by the Texas Commission on Environmental Quality.

KEY ISSUES

The 83rd Texas Legislature appropriated \$2 million to the Texas Water Development Board for continued studies of environmental flows and freshwater inflows to bays and estuaries in Section 18.03 of the Appropriations Bill. The bill requires that at least \$750,000 be used for projects in the Guadalupe, San Antonio, Mission, and Aransas Rivers and Mission, Copano, Aransas, and San Antonio Bays basin, and that selection of the remaining basins be determined by the Science Advisory Committee and approved by the Environmental Flows Advisory Group. On September 10, 2013, the Science Advisory committee recommended that the Trinity-San Jacinto, Brazos, Colorado-Lavaca, and Nueces basins be provided funding of \$312,500 each. On January 14, 2014, the Environmental Flows Advisory Group approved this funding distribution. Unexpended funds as of August 31, 2014, are appropriated for the same purpose in the fiscal year beginning September 1, 2014.

On November 21, 2013, the Colorado, Lavaca Basin and Bay Area Stakeholder Committee identified specific studies from the work plan to be recommended for funding and created a subcommittee to develop scopes of work and scoring criteria for the proposed studies. The stakeholder committee approved the scopes of work, budgets, and scoring criteria on January 7, 2014, and requested that TWDB fund the projects. Staff is prepared to administer contracting of these studies.

In summary, the Colorado, Lavaca Basin and Bay Area Stakeholder Committee requests that two projects be funded for a total of \$312,500. Funds are requested for the following two studies:

- (a) Studies to evaluate achievement of freshwater inflow standards and ecological response (\$250,000), and
- (b) Evaluation of potential strategies to help provide needed instream flows or freshwater inflows to support an ecologically sound stream or estuary (\$62,500).

Final funding amounts for these studies will be determined following review of the proposals received and final negotiations with the selected contractors. For more detailed descriptions of the proposed contracted studies, please see the project summaries in Attachment B.

RECOMMENDATION

The Executive Administrator recommends approval of this item.

This recommendation has been reviewed by legal counsel and is in compliance with applicable statutes and Board rules.

Les Trobman
General Counsel

Attachment A: Summary of important dates and status of the Senate Bill 3 Process

Attachment B: Proposed studies for the Colorado and Lavaca Rivers and Matagorda and Lavaca Bays Basin and Bay Area

ATTACHMENT A

Summary of Important Dates and Status of the Senate Bill 3 Process (as of December 3, 2013)

Senate Bill 3 Basin	Science Team Report Submitted	Stakeholder Report Submitted	Rule Adoption Date	Rule Effective Date	Adaptive Management Work Plan – Date Submitted	Adaptive Management Work Plan – Date Approved	Review Cycle	First Review of Standards (Determined by TCEQ Effective Date unless otherwise noted)
Sabine- Neches	November 30, 2009	May 20, 2010	April 20, 2011	August 30, 2012 (due to an amendment to change review cycle from 10 to 5 years)	December 6, 2010 with addendum added on August 8, 2011	September 8, 2011	5 years	September 1, 2013 **(Determined so that review will be available to planning group)
Trinity-San Jacinto	November 30, 2009	May 31, 2010	April 20, 2011	May 15, 2011	May 4, 2012	<i>Not yet approved</i>	5 years*	To be aligned with regional water planning cycle, but date not specified in work plan
Brazos	March 1, 2012	September 1, 2012	<i>To be adopted by March 1, 2014***</i>	<i>n/a</i>	November 13, 2013	<i>Not yet approved</i>	10 years*	<i>Not yet determined</i>
Colorado- Lavaca	March 1, 2011	August 30, 2011	August 8, 2012	August 30, 2012	June 26, 2012	<i>Not yet approved</i>	10 years	August 30, 2020
Guadalupe- San Antonio	March 1, 2011	September 1, 2011	August 8, 2012	August 30, 2012	May 25, 2012	<i>Not yet approved</i>	5 years*	August 30, 2017
Nueces	October 28, 2011	August 22, 2012	<i>To be adopted by March 1, 2014***</i>	<i>n/a</i>	November 30, 2012	<i>Not yet approved</i>	5 years*	<i>August 30, 2018*</i>
Upper Rio Grande	July 30, 2012	<i>Not yet submitted</i>	<i>To be adopted by March 1, 2014***</i>	<i>n/a</i>	<i>Not yet submitted</i>	<i>n/a</i>	<i>Not yet determined</i>	<i>Not yet determined</i>
Lower Rio Grande	July 30, 2012							

*Review cycles have not been formally adopted by Texas Commission on Environmental Quality, but rather, were recommended by stakeholder committees in their respective work plans.

** Information from 30 Texas Administrative Code, Section 298.290, Schedule for Revision of Standards,
<http://www.tceq.texas.gov/assets/public/legal/rules/rules/pdfib/298c.pdf>

*** Schedule modified by Environmental Flows Advisory Group at their January 15, 2013 meeting.

ATTACHMENT B

PROPOSED STUDIES FOR THE COLORADO AND LAVACA RIVERS AND MATAGORDA AND LAVACA BAYS BASIN AND BAY AREA

Studies to Evaluate Achievement of Freshwater Inflow Standards and Ecological Response

The freshwater inflow standards adopted by TCEQ for Matagorda Bay and Lavaca Bay include varying inflow quantities and accompanying attainment frequencies for both a permitting and a strategy scenario. Particularly with respect to the Matagorda Bay inflow standards, the attainment frequencies associated with the strategy scenario are based on extensive scientific studies. The Lavaca Bay inflow standards and attainment frequencies associated with the strategies scenario are modeled on the approach and studies undertaken in Matagorda Bay, but site-specific studies for that bay are lacking. Recent drought conditions in both basins created conditions with inflows at or below the levels established in the standards. As identified by the Colorado, Lavaca Basin and Bay Area Stakeholder Committee and the Science Advisory Committee, the recent drought conditions provide a potential opportunity to collect and assess data about ecological conditions and impacts associated with low inflows into the two bay systems.

Accordingly, the Colorado, Lavaca Basin and Bay Area Stakeholder Committee requests ecological sampling and monitoring and/or analysis in Matagorda and Lavaca bays designed to evaluate ecological conditions and impacts associated with inflows at or below the levels included in the flow standards. The basic goal for proposals should be to provide technical information to help inform consideration of whether the adopted standards, if met, are likely to be adequate to support a sound ecological environment in those bay systems and consideration of what, if any, components of the standards might need revision in order to achieve a sound ecological environment. Funding to be allocated to this activity is not expected to exceed \$250,000 and all work and deliverables associated with TWDB administered funding shall be completed prior to August 31, 2015. If any supplemental work is proposed utilizing other funding sources, that work and associated deliverables may have a later completion date.

Evaluation of Potential Strategies to Help Provide Needed Instream Flows or Freshwater Inflows to Support an Ecologically Sound Stream or Estuary

The environmental flow standards adopted by TCEQ for Matagorda Bay and Lavaca Bay include attainment frequencies for freshwater inflows that are likely to be met only with the benefit of affirmative strategies to help increase levels of inflows. The environmental flow standards also include a finding that strategies to provide additional freshwater inflows to East Matagorda Bay should be pursued. In addition, the flow standards include instream flow levels that, in some locations, may be met only with the benefit of affirmative strategies. As acknowledged in the August 2011 Environmental Flows Recommendation Report of the Colorado Lavaca Basin and Bay Areas Stakeholder Committee (http://www.tceq.state.tx.us/assets/public/permitting/watersupply/water_rights/eflows/collavbbascreport_82011.pdf), there are many types of potential strategies that might be used to help increase flows consistent with the flow standards. The need for review of strategies was acknowledged in the Colorado, Lavaca work plan.

Accordingly, the Colorado, Lavaca Basin and Bay Areas Stakeholder Committee requests evaluation of potential strategies that could help provide increased instream flows or freshwater inflows consistent

with Subchapter D of Chapter 298 of TCEQ's rules. The basic goal should be to provide technical analysis of the potential for implementation—including consideration of cost and feasibility—of one or more specific strategies to increase freshwater inflows or instream flows, particularly during dry periods, and the expected benefit in terms of increased inflow or instream flow. Funding to be allocated to this activity is not expected to exceed \$62,500 and all work and deliverables associated with TWDB administered funding shall be completed prior to August 31, 2015. If any supplemental work is proposed utilizing other funding sources, that work and associated deliverables may have a later completion date.